



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

PUBLIC AFFAIRS

March 21, 2008

In reply refer to: DK-7

Mr. Ryan Dreveskracht
118 E. Pastime Rd.
Tucson, AZ 85705

RE: FOIA #08-028

Dear Mr. Dreveskracht:

This letter is your final response to your request for information that you made to the Bonneville Power Administration (BPA) under the Freedom of Information Act (FOIA), 5 U.S.C. § 552.

You asked for the following:

“A copy of the Interconnection and Exchange Agreement (I&E): A long-term, three-way contract between BPA, B.C. Hydro and B.C. Hydro’s marketing subsidiary, the Power Exchange Corporation (POWEREX).” BPA has provided, in its entirety, an enclosed copy of the document you have requested. There will be no charge for this request.

If you are dissatisfied with this determination, you may make an appeal within thirty (30) days of your receipt of this letter to Director, Office of Hearings and Appeals, Department of Energy, 1000 Independence Avenue, Washington, DC 20585. Both the envelope and letter must clearly be marked “Freedom of Information Act.”

I appreciate the opportunity to assist you with this matter. If you have about this letter, please contact Laura M. Atterbury, FOIA/Privacy Act Specialist, at 503-230-7305.

Sincerely,

/s/ Christina J. Brannon

Christina J. Brannon
Freedom of Information Act/Privacy Act Officer

Enclosure: Responsive Document

AUTHENTICATED COPY

Contract No. DE-MS79-91BP92793

INTERCONNECTION AND EXCHANGE AGREEMENT

executed by the

UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

acting by and through the

BONNEVILLE POWER ADMINISTRATION

and

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

and

BRITISH COLUMBIA POWER EXPORT CORPORATION

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This INTERCONNECTION AND EXCHANGE AGREEMENT executed January 9, 1991,
by the UNITED STATES OF AMERICA (Government), Department of Energy, acting by
and through the BONNEVILLE POWER ADMINISTRATION (Bonneville), the BRITISH
COLUMBIA HYDRO AND POWER AUTHORITY (B.C. Hydro), continued under the Hydro and
Power Authority Act of the Province of British Columbia, and BRITISH COLUMBIA
POWER EXPORT CORPORATION (POWEREX), incorporated pursuant to the laws of the
Province of British Columbia, hereinafter sometimes referred to individually
as "Party" and collectively as "Parties,"

W I T N E S S E T H:

WHEREAS the transmission facilities of Bonneville and B.C. Hydro are interconnected, and there are benefits to system operations, system security, and system stability by being interconnected, and the Parties wish to remain interconnected; and

WHEREAS the Parties support the concept that reliable business relationships will produce the best long-term results for all Parties and electricity trade should be consistent with the West Coast Vision, which seeks to advance the most efficient development of the West Coast system to enhance opportunities for mutually beneficial electricity transactions in the future; and

WHEREAS the Parties desire to execute an agreement which will enable a variety of transactions; and

WHEREAS Bonneville and B.C. Hydro on March 25, 1970, entered into Contract No. 14-03-33266 providing for the sale of power, exchanges of capacity and energy, and other services, and on April 12, 1979, entered into Contract No. EH-78-Y-83-0046 providing for transmission service by Bonneville on an excess capacity basis, and on June 3, 1988, entered into Contract No. DE-MS79-88BP92519 (Extension Agreement) extending the term of Contract Nos. 14-03-33266 and EH-78-Y-83-0046, which are hereinafter referred to as "Prior Agreements"; and

WHEREAS Bonneville and B.C. Hydro desire to terminate the Prior Agreements and the Parties seek to incorporate certain provisions of the Prior Agreements into this Agreement; and

WHEREAS Bonneville and Cominco Ltd. executed an agreement on October 20, 1987, Contract No. DE-MS79-87BP92397, specifying a point of interconnection at Waneta and providing for short-term power sales or exchanges, emergency and

breakdown relief, and other matters, and B.C. Hydro has arranged to include Waneta in its generation control operations; and

WHEREAS Bonneville and Cominco Ltd. executed an agreement on January 23, 1984, Contract No. DE-MS79-83BP90955, providing among other things for the seasonal shaping service by Bonneville for Cominco Ltd. and the purchase by Bonneville of surplus energy from Cominco Ltd.; and

WHEREAS Bonneville and B.C. Hydro, on March 30, 1970, executed a Trust Agreement, Contract No. 14-03-99109, providing among other things for the construction and transfer of title and ownership of 230 kV transmission and terminal facilities at the Government's Boundary Substation from B.C. Hydro to the Government; and

WHEREAS in December 1988, B.C. Hydro incorporated POWEREX, a wholly owned subsidiary, to facilitate electricity transactions for B.C. Hydro and independent power producers located in the Province of British Columbia; and

WHEREAS B.C. Hydro will be the scheduling agency for all POWEREX inter-utility transactions; and

WHEREAS B.C. Hydro and POWEREX are authorized by the Minister of Energy, Mines, and Petroleum Resources of the Province of British Columbia to export power and energy to the United States under certain energy removal certificates; and

WHEREAS B.C. Hydro and POWEREX will conduct export transactions under National Energy Board (NEB) licenses, permits, and orders; and

WHEREAS the provisions of the United States-Canada Free Trade Agreement shall apply to electricity transactions hereunder; and

WHEREAS Bonneville is authorized pursuant to law to dispose of Electric Power generated at various Federal hydroelectric projects in the USA Pacific Northwest or acquired from other resources, to construct and operate

transmission facilities, to provide transmission and other services, and to enter into agreements to carry out such authority;

NOW, THEREFORE, the Parties hereto mutually agree as follows:

1. Termination of Prior Agreements. The Prior Agreements are hereby terminated as of the Effective Date; provided however, all liabilities incurred thereunder shall remain until satisfied.

2. Term of Agreement.

(a) This Agreement shall be effective at 2400 hours on the date of execution; provided however, that if B.C. Hydro and POWEREX have not obtained, prior to the date of execution, all necessary governmental and regulatory approvals for this Agreement including the licenses and certificates which are attached as Exhibits I and J, this Agreement shall be effective at 2400 hours on the date such approvals are obtained (Effective Date).

(b) This Agreement shall terminate on the earlier of (1) 20 years from the Effective Date or (2) pursuant to subsections 2(c) or 2(d).

(c) Bonneville may terminate this Agreement upon 3 months' prior written notice in the event that B.C. Hydro's guarantee and performance of obligations of POWEREX ceases pursuant to subsection 5(a), and if this Agreement is not assigned to B.C. Hydro following Bonneville's election pursuant to subsection 5(b).

(d) This Agreement shall terminate on September 30, 1991, in the event the Parties are unable to reach agreement on either (1) reciprocal terms and conditions for services provided hereunder pursuant to subsection 6(a) or (2) comparable loss methodologies pursuant to section 7.

(e) Notwithstanding termination of this Agreement, the Parties agree to keep their transmission systems interconnected for stability and security benefits, for any outstanding obligations pursuant to the Columbia River

Treaty and the Skagit Treaty, and provide for emergency and breakdown relief as described in section 8.

(f) Notwithstanding termination of this Agreement, all liabilities incurred hereunder shall remain until satisfied.

3. Definition and Explanation of Terms.

(a) "Agency" means the Federal Energy Regulatory Commission, or its successor agency.

(b) "Agreement" means this Interconnection and Exchange Agreement, Contract No. DE-MS79-91BP92793.

(c) "Eastside Northern Intertie" means that portion of the interconnection between B.C. Hydro and Bonneville that consists of one 230 kV transmission line connecting the Nelway Substation and one 230 kV transmission line connecting the Haneta Substation, both to the Boundary Substation, respectively, and associated substation facilities; and any additions to or modifications of such facilities.

(d) "Electric Energy" means electric energy, expressed in kilowatthours.

(e) "Electric Power" or "power" means electric peaking capacity, expressed in kilowatts, Electric Energy, or both.

(f) "Operational Transfer Capability" or "OTC" means the Rated Transfer Capability less reductions caused by, but not limited to, physical limitations as a result of, among other things, line or equipment outages, stability limits, or loop flow.

(g) "Point of Delivery" means the point or points where power is made available hereunder by the transmitting Party.

(h) "Point of Interconnection" means the points, as described in Exhibit C, where Electric Power shall be made available for transactions hereunder.

(i) "Rated Transfer Capability" or "RTC" means the maximum capability of a transmission line or system to transfer Electric Power in a reliable and safe manner as mutually determined and consistent with prudent utility practice.

(j) "Single Contingency Rating" or "SCR" means the capability, determined in accordance with Western Systems Coordinating Council (WSCC) criteria and as mutually agreed by the Parties, of a transmission line or system to transfer a specified amount of Electric Power in a direction, with all major facilities initially in-service, such that following loss of any one major facility, the transfers may be continued in a reliable and safe manner while allowing the operators sufficient time to adjust the system to prepare for a further contingency.

(k) "USA Pacific Northwest" means the states of Oregon, Washington, and Idaho; the portion of Montana west of the Continental Divide; portions of Nevada, Utah, and Wyoming within the Columbia River drainage basin; and any contiguous service territories of rural electric cooperatives serving inside and outside the USA Pacific Northwest, not more than 75 air miles from the areas referred to above, that were served by Bonneville as of December 1, 1980.

(l) "Westside Northern Intertie" means that portion of the interconnection between B.C. Hydro and Bonneville that consists of two 500 kV transmission lines connecting the Ingledow Substation and the Custer Substation, respectively, and associated substation facilities; and any additions to or modifications of such facilities.

4. Exhibits. The rights and obligations of the Parties with respect to the provisions hereunder shall be subject to and governed by this Agreement, including Exhibits A through J attached hereto and by this reference made a part of this Agreement. The headings used in this Agreement are for

convenient reference only, and shall not affect the interpretation of this Agreement. In the event of a conflict between the terms contained in the body of this Agreement and the terms contained in any Exhibit, the terms of this Agreement shall control.

5. Relationship Between B.C. Hydro and POWEREX.

(a) While B.C. Hydro owns the majority of shares of POWEREX, B.C. Hydro will guarantee performance of all obligations of POWEREX under this Agreement. In the event that POWEREX fails to perform, B.C. Hydro shall perform such obligations of POWEREX under this Agreement. If at any time a transfer of the shares of POWEREX to a third party results in B.C. Hydro no longer owning a majority of POWEREX shares, B.C. Hydro's guarantee and performance obligations of POWEREX shall cease.

(b) If at any time a transfer of the shares of POWEREX to a third party results in B.C. Hydro no longer owning a majority of POWEREX shares, B.C. Hydro shall, at Bonneville's election, request the assignment of this Agreement from POWEREX, and POWEREX shall make all reasonable efforts to assign this Agreement to B.C. Hydro.

6. Short-Term Power Sales, Exchanges, Transmission, and Other Services.

(a) Transmission services provided by the Parties pursuant to this Agreement shall be according to reciprocal terms and conditions. Services shall be provided under comparable conditions including comparable prices, which will be no greater than those established under embedded cost methodologies. By June 30, 1991, the Parties shall attempt to reach agreement on specific prices, formulas, methodologies, or other mechanisms for establishing transmission services. However, current pricing methodologies shall continue until such agreement is reached. If the Parties are unable to

reach such agreement by June 30, 1991, this Agreement shall terminate on September 30, 1991.

(b) B.C. Hydro and Bonneville may make power sales or exchanges between themselves, or provide transmission or other services between themselves, to facilitate transactions with third parties. If requested by either Party, any such power sale, exchange, transmission, or other service shall be confirmed in writing by such Parties prior to the commencement of service thereunder.

(c) POWEREX and Bonneville may make power sales or exchanges between themselves, or provide transmission or other services between themselves, to facilitate transactions with third parties. If requested by either Party, any such power sale, exchange, transmission, or other service shall be confirmed in writing by such Parties prior to the commencement of service thereunder.

(d) All transactions pursuant to subsections 6(b) and 6(c) above shall be for a period not to exceed 24 months. All such transactions in excess of 1 month shall be confirmed in writing by such Parties thereto prior to the commencement of service thereunder.

(e) During hours when the Operational Transfer Capability of the Eastside Northern Intertie and the Westside Northern Intertie is reduced to zero, Bonneville and B.C. Hydro shall not be obligated to deliver Electric Power hereunder. During hours when the Operational Transfer Capability of the Eastside Northern Intertie or the Westside Northern Intertie is less than the Rated Transfer Capability, B.C. Hydro or Bonneville may:

(1) restrict deliveries of Electric Energy for any hour hereunder to the amount it determines can be delivered, and the Parties shall not schedule deliveries in excess of such restricted amount until such restriction is removed; and/or

(2) upon its determination that unscheduled flows are adversely affecting the operation of its transmission system, advise the other of the condition, and in absence of corrective action, in accordance with established unscheduled flow management procedures cause the interconnection over which such inadvertent flow is occurring to be opened.

(f) B.C. Hydro shall operate, to the best of its ability, its phase shifting transformer(s) on the Eastside Northern Intertie to enhance transactions between the Parties and to reduce the average annual net circulating power flow between the Eastside Northern Intertie and Westside Northern Intertie to approximately zero, unless otherwise agreed by the Parties.

(g) No Party is obligated by this Agreement to sell to or exchange power with, or provide any transmission, shaping, storage, schedule, or other services of any kind to, another Party. Transactions pursuant to this Agreement shall be undertaken when mutually agreeable. Priorities between such transactions and other transactions between the Parties shall be agreed to on a case-by-case basis.

All rights and obligations under this Agreement shall be subject to, and not diminish the rights and obligations under, the Non-Treaty Storage Agreement (Contract No. DE-MS79-84BP90946, or its successor), the Columbia River Treaty, the Skagit Treaty, or any other existing agreement or the requirements imposed by Public Laws 88-552 and 96-501, Bonneville's Long-Term Intertie Access Policy, and the provisions of B.C. Hydro's and POWEREX's NEB Licenses and Provincial Energy Removal Certificates.

7. Transmission Losses. Compensation for Electric Power losses incurred by the Parties in providing transmission services from the Point of Interconnection to the Point of Delivery shall be determined using comparable

loss methodologies. Such methodologies shall be agreed to between the Parties by June 30, 1991, and specified in Exhibit G. If the Parties are unable to reach such agreement, this Agreement shall terminate on September 30, 1991. Each Party shall make available to the other Parties at their system Points of Interconnection described in Exhibit C, unless otherwise mutually agreed, at the corresponding hour 168 hours later or at another hour mutually agreed upon, the amounts of Electric Power determined pursuant to the loss methodology described above.

8. Emergency and Breakdown Relief. Each Party shall attempt to aid any other Party during breakdowns or emergency conditions on the Parties' systems. If a breakdown or emergency on the system of any Party occurs, the other Parties shall make available upon request, while such breakdown or emergency exists, all or such part of Electric Energy required for such system as the supplying Party determines it can supply, consistent with its other obligations. The supplying Party's determination of the amounts, terms, and conditions of the Electric Energy supplied shall be final and conclusive as to all Parties. Payment for or replacement of such Electric Energy shall be as determined by the supplying Party under terms and conditions set forth in a separate agreement.

9. Sixty-Day Notice. Each Party shall attempt to give the other Parties involved 60 days' written notice before making a commitment to enter into power sales or exchanges for longer than 1 month that would necessitate the use of such Party's transmission system or the provision of other services hereunder. Such transmission and other services shall only be provided as agreed to by the Parties as provided in subsections 6(b) and 6(c). If any Party is unable to give 60 days' notice for a particular transaction, it shall provide as much notice as possible.

10. Provisions Relating to Delivery. Subject to the other provisions of this Agreement, the Parties shall make Electric Energy available at the Points of Interconnection specified in Exhibit C or at other mutually agreeable points.

11. Scheduling Arrangements.

(a) B.C. Hydro shall be the scheduling agency for all POWEREX inter-utility transactions.

(b) Each transaction shall be scheduled separately by Bonneville and B.C. Hydro.

(c) Bonneville shall schedule for delivery to B.C. Hydro and POWEREX during each hour, any Electric Energy requested by B.C. Hydro and POWEREX for such hour which Bonneville determines can be made available under section 6 of this Agreement.

(d) B.C. Hydro shall schedule for delivery to Bonneville during each hour, any Electric Energy requested by Bonneville for such hour that B.C. Hydro and POWEREX determine can be made available under section 6 of this Agreement.

(e) B.C. Hydro and Bonneville shall schedule separately, for each hour of the following day or days, the hourly amounts of Electric Power to be made available pursuant to section 7 for transmission losses.

(f) Schedules under subsections 11(c), 11(d) and 11(e) above, for each hour of the following day or days, will be completed, as mutually agreed, on each day that B.C. Hydro and Bonneville hereto observe as a regular workday.

(g) All changes in schedules hereunder shall be by mutual agreement, unless otherwise provided for in subsequent arrangements under this Agreement. B.C. Hydro and Bonneville shall endeavor to avoid changes in schedules hereunder; provided however, neither Party shall unreasonably

withhold changes requested by the other Party if such changes result in a net schedule within the OTC. B.C. Hydro and Bonneville shall hold deviations from schedules to a minimum, shall account for any such deviations, and shall correct therefor as promptly as possible under conditions approximately equivalent to the conditions under which the deviation occurred. The amounts scheduled for delivery shall be deemed delivered.

(h) Schedules by the Parties for concurrent schedules of delivery and receipt shall be netted against each other to determine the total scheduling requirement.

12. Payment Provisions.

(a) All payments and bills shall be in United States funds.

(b) Bonneville shall:

(1) prepare a bill for POWEREX and a bill for B.C. Hydro each month for power sales, exchanges, transmission, or other services provided by Bonneville to POWEREX and B.C. Hydro pursuant to section 6 at the mutually agreeable rates or charges determined by the Parties pursuant to subsection 6(a), or at the appropriate negotiated charge for services provided and in accordance with Exhibit A or Exhibit D; and

(2) prepare a bill each month, for power sales, exchanges, transmission, or other services provided by B.C. Hydro and POWEREX to Bonneville pursuant to section 6 at the mutually agreeable rates or charges determined by the Parties pursuant to subsection 6(a).

(c) Payments due one Party under this Agreement shall be offset against payments due to the other Party. The resulting net balance shall be paid by the owing Party to the Party in whose favor such balance rests.

(d) POWEREX and B.C. Hydro shall pay Bonneville any amount owed within 20 days after the date of the bill in accordance with Exhibit A or Exhibit D.

(e) Bonneville shall pay any amount owed within 20 days after the date of the bill as follows:

(1) Payment to POWEREX shall be remitted by wire transfer for same day value to: Royal Bank of Canada, Main Branch, 1025 West Georgia, Vancouver, B.C., Account No. 405-821-0, or as otherwise notified pursuant to subsection 12(h).

(2) Payment to B.C. Hydro shall be remitted by wire transfer for same day value to: Royal Bank of Canada, Main Branch, 1025 West Georgia, Vancouver, B.C., Account No. 400-009-7, or as otherwise notified pursuant to subsection 12(h).

Bills which are not paid by Bonneville within 20 days after the date of the bill shall accrue an interest charge, prorated by days, at the prime lending rate charged by the Royal Bank of Canada in Vancouver, B.C., plus two percent (per annum) until payment is received.

(f) In the event of a disputed billing, full payment shall be rendered by Bonneville and the disputed amount noted. Disputed amounts are subject to the late payment provisions of subsection 12(e). The disputed amount shall be accounted for separately by the Party receiving such payment. If it is determined that Bonneville is entitled to the disputed amount, the Party shall refund the disputed amount, with interest, determined in the same manner as used in calculating late charges.

(g) When the Parties agree that new information indicates an amount billed is incorrect, Bonneville shall prepare a revised bill. The payment due under such revised bill shall be made by the owing Party within 20 days after the date of such revised bill.

(h) The Parties shall designate their official addresses for receipt of official notices and all other official communications relating to each transaction in any written confirmation of a transaction.

13. System-to-System Transfer Capability.

(a) If a new B.C. Hydro to USA Pacific Northwest Interconnection (Interconnection) or an expansion to a then existing Interconnection is built, only the incremental RTC added to the total system will be allocated to the new Interconnection or expansion.

(1) If at any time the OTC of both the Westside Northern Intertie and Eastside Northern Intertie is reduced due to limitations on the B.C. Hydro system, then, at the request of either Bonneville or B.C. Hydro, the remaining OTC will be pro rated between all Interconnections on the USA Pacific Northwest side affected by B.C. Hydro restrictions according to the USA Pacific Northwest utilities' relative share of the RTC.

(2) If at any time a reduction of the OTC on the B.C. Hydro system can be determined to be limited to the Eastside Northern Intertie or parallel Interconnection or Westside Northern Intertie or parallel Interconnection, any pro rated sharing of such restriction shall be limited to the Eastside Northern Intertie or parallel Interconnection or Westside Northern Intertie or parallel Interconnection, depending upon which side of the B.C. Hydro transmission system is experiencing the transmission limitation.

(3) However, reductions due to limitations on Bonneville's or another USA Pacific Northwest utility's transmission system shall, at the request of either Bonneville or B.C. Hydro, be borne solely by that utility.

(4) Reductions under subsections 13(a)(1), 13(a)(2) and 13(a)(3) above may be shared between Bonneville and USA Pacific Northwest utilities in a manner other than pro rata if otherwise agreed by Bonneville and those utilities.

(b) The existing bi-directional Rated Transfer Capabilities of the Westside Northern Intertie and the Eastside Northern Intertie are 2000 MW and 300 MW, respectively. The Parties agree to maintain these Rated Transfer Capabilities provided Electric Power transactions continue at recent historic levels.

(c) To deal with the present forecasted increases in Electric Power transactions, the Parties shall develop and implement transmission plans that achieve an RTC on the Westside Northern Intertie between 2700 and 3000 MW North-to-South and between 2000 and 2200 MW South-to-North, and a bi-directional RTC up to 600 MW on the Eastside Northern Intertie. The transmission plans shall provide for a North-to-South SCR between 700 and 1000 MW on the Westside Northern Intertie and up to 600 MW for the Eastside Northern Intertie unless otherwise agreed by the Parties, and such agreement shall not be unreasonably withheld. The transmission plans shall be based on joint technical and economic studies by the Parties. The Parties will make all reasonable efforts to reach agreement on the transmission plans by June 30, 1991. No decision to implement the transmission plans shall be made until the transmission plans are authorized by law.

(d) When the level of future needs is forecasted to exceed the then current Rated Transfer Capabilities, and when the mutual benefits of the forecasted increased transactions exceed the costs of increases in RTC, the Parties shall participate in transmission investments.

(e) Increases in Rated Transfer Capability should be achieved in a fashion which, when examined from a total system viewpoint, provide a reasonable balance among environmental impacts, minimizing costs, and maintaining system reliability subject to the Parties' legal and regulatory requirements.

(f) B.C. Hydro and Bonneville, as well as participants in the new Interconnection capability, must agree expeditiously and through WSCC procedures on the amounts of both incremental RTC and non-simultaneous ratings of any new Interconnection before any transactions may be scheduled on the new Interconnection.

(g) The Parties agree to exchange information on the actual power flows and other information necessary to maintain reliable and safe system operations and to appropriately treat Electric Power transmission losses.

(h) One or more committees shall be established which will meet regularly to identify long-term business opportunities and technical requirements to enable mutually beneficial Electric Power transactions. The committee(s) shall consist of two representatives from Bonneville and two representatives from B.C. Hydro/POWEREX. All recommendations of the committee(s) shall be recorded and forwarded to the Parties for consideration.

14. Long-Term Transmission Service. The Parties desire to enter into mutually beneficial long-term electricity trade arrangements. To encourage such arrangements, the Parties will undertake to provide long-term transmission services under comparable terms and conditions that provide such benefits; provided, however, that nothing in this Agreement obligates the Parties to provide long-term transmission services between themselves.

15. Reactive Power. Bonneville and B.C. Hydro will jointly plan and operate their transmission systems so that the flow of reactive power thereunder will not adversely affect the transmission system of the other.

PL
B
C
D
The parties will endeavor to jointly operate the flow of reactive power to the mutual benefit of their respective systems when system conditions allow such support.

16. Revision of Exhibits.

(a) The initial applicable General Rate Schedule Provisions and General Transmission Rate Schedule Provisions attached as Exhibits A and D have been conditionally confirmed and approved by the Agency. If the final General Rate Schedule Provisions and General Transmission Rate Schedule Provisions which are approved by the Agency are amendments or modifications of the initial General Rate Schedule Provisions or General Transmission Rate Schedule Provisions, the applicable amended or modified General Rate Schedule Provisions or General Transmission Rate Schedule Provisions shall be attached hereto and made a part of this Agreement effective as of the date specified in the Agency's approval.

(b) The General Rate Schedule Provisions or General Transmission Rate Schedule Provisions included in Exhibits A and D shall be replaced by successor rate schedule provisions in accordance with the provisions of Section 7(1) of Exhibit F and Agency rules.

(c) The Parties shall annually review Exhibit G and shall revise such exhibit, as mutually agreed, as appropriate to incorporate comparable values which represent then current operating conditions, or to incorporate any value, used in such exhibit to calculate the Electric Power losses that has changed due to a change in methodology. Bonneville shall prepare a new Exhibit G incorporating any revision and the revised exhibit shall become effective as of the date specified therein.

OR POWEREX
(d) B.C. Hydro shall notify Bonneville in the event that Exhibits I and/or J are revised by either the NEB or Provincial Government and shall

provide copies of the revised exhibit(s). The new Exhibits I and/or J shall either replace or supplement, as appropriate, the earlier versions of Exhibits I and/or J and the revised exhibit(s) shall become effective as of the date specified therein.

17. Signature Clause. The signatories hereto represent that they have been appropriately authorized to enter this Agreement on behalf of the Party for whom they sign.

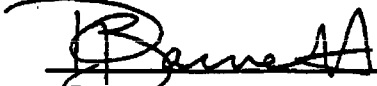
IN WITNESS WHEREOF, the Parties have executed this Agreement in several counterparts.

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration

/s/ Edward W. Sienkiewicz

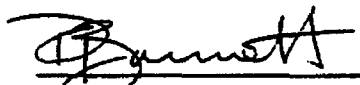
By 
Administrator
or
Senior Assistant Administrator

ATTEST:

By 
Title VP's General Counsel
Date 9 January 1991

/s/ D. Barnett
VP's General Counsel

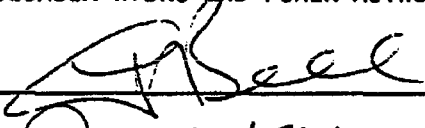
ATTEST: 9 January 1991

By 
Title General Counsel
Date 9 January 1991

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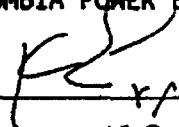
/s/ D. Barnett
General Counsel
9 January 1991

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

By 
Title Jan 9/91
Date CEO

/s/ L. Bell
CEO Jan 9/91

BRITISH COLUMBIA POWER EXPORT CORPORATION

By 
Title CEO
Date 91/1/9

/s/ K. Epp
CEO
91/1/9

POINTS OF INTERCONNECTION

1. BLAINE NO. 1 POINT OF INTERCONNECTION:

Location: the point at the border between the United States and Canada in the vicinity of Blaine, Washington, where the 500 kV facilities of the Government and B.C. Hydro are connected on the Custer-Ingledow No. 1 500 kV transmission line;

Voltage: 500 kV;

Metering: at the B.C. Hydro Ingledow Substation, in the 500 kV circuit over which such Electric Power flows;

Adjustments:

- (1) demands are totaled with deliveries at the Blaine No. 2 Point of Interconnection;
- (2) for losses between the point of metering and the Point of Interconnection.

2. BLAINE NO. 2 POINT OF INTERCONNECTION:

Location: the point at the border between the United States and Canada in the vicinity of Blaine, Washington, where the 500 kV facilities of the Government and B.C. Hydro are connected on the Custer-Ingledow No. 2 500 kV transmission line;

Voltage: 500 kV;

Metering: at the B.C. Hydro Ingledow Substation, in the 500 kV circuit over which such Electric Power flows;

Adjustments:

- (1) demands are totaled with deliveries at the Blaine No. 1 Point of Interconnection;
- (2) for losses between the point of metering and the Point of Interconnection.

3. NELWAY POINT OF INTERCONNECTION:

Location: the point at the border between the United States and Canada near Nelway, British Columbia, where the 230 kV facilities of the Government and B.C. Hydro are connected on the Boundary-Nelway 230 kV transmission line;

Voltage: 230 kV;

Metering: at the Government's Boundary Substation, in the 230 kV circuit over which such Electric Power flows;

Adjustments: for losses between the point of metering and the Point of Interconnection.

4. HANETA POINT OF INTERCONNECTION:

Location: the point on the border between the United States and Canada in the vicinity of Nelway, British Columbia, where the 230 kV facilities of the Government and Cominco Ltd. are connected on the Boundary-Haneta 230 kV transmission line;

Voltage: 230 kV;

Metering: at the Government's Boundary Substation, in the 230 kV circuit over which such Electric Power flows;

Adjustments: for transmission losses between the point of metering and the Point of Interconnection.

Exhibit G
Page 1 of 1
Contract No. DE-MS79-91BP92793
British Columbia Hydro and
Power Authority and British
Columbia Power Export
Corporation

TRANSMISSION LOSS FACTORS

Electric Power Losses shall be determined by the Parties using comparable loss methodologies. Such methodologies shall be agreed to between the Parties by June 30, 1991.

(VS6-PMTI-3424e)

AUTHENTICATED COPY

Amendatory Agreement No. 1
Contract No. DE-MS79-91BP92793

AMENDATORY AGREEMENT

executed by the

UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

acting by and through the

BONNEVILLE POWER ADMINISTRATION

and

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

and

BRITISH COLUMBIA POWER EXCHANGE CORPORATION

This AMENDATORY AGREEMENT, executed August 15, 1991, by the UNITED STATES OF AMERICA (Government), Department of Energy (DOE), acting by and through the BONNEVILLE POWER ADMINISTRATION (Bonneville), the BRITISH COLUMBIA HYDRO AND POWER AUTHORITY (B.C. Hydro), continued under the Hydro and Power Authority Act of the Province of British Columbia, and BRITISH COLUMBIA POWER EXCHANGE CORPORATION (POWEREX), incorporated pursuant to the laws of the Province of British Columbia, hereinafter sometimes referred to individually as "Party" and collectively as "Parties,"

WITNESSETH

WHEREAS Bonneville, B.C. Hydro, and POWEREX, on January 9, 1991, entered into an agreement (Contract No. DE-MS79-91BP92793, which, as amended or replaced, is hereinafter referred to as the "I&E Agreement") providing for short-term power sales, exchanges, transmission, and other services among the Parties; and

WHEREAS in the I&E Agreement the Parties agreed to make all reasonable effort to reach agreement on a transmission plan by June 30, 1991; and

WHEREAS in the I&E Agreement B.C. Hydro and POWEREX agreed to develop rates and determine losses for transmission services to be provided to Bonneville under that agreement; and

WHEREAS the I&E Agreement will terminate on September 30, 1991 if conditions, rates and losses have not been agreed to by June 30, 1991.

NOW, THEREFORE, the Parties hereto agree as follows:

1. Term. This Amendatory Agreement is effective at 2400 hours on June 30, 1991.

2. Amendment.

(a) Subsection 2(b) is hereby deleted and replaced as follows:

2(b) This Agreement shall terminate on the earlier of (1) 20 years from the Effective Date or (2) pursuant to subsection 2(c), 2(d) or 2(e).

(b) Subsection 2(e) is hereby added as follows:

2(e) If any Party changes the methodology used to calculate its wheeling rates or its application and, if in the opinion of any other Party, the resulting proposed wheeling rates to be charged under this Agreement are no longer based on a comparable methodology, and if an agreement on alternate wheeling rates cannot be reached, any Party can terminate this Agreement on two years' prior written notice.

(c) Subsection 2(f) is hereby added as follows:

2(f) If either B.C. Hydro or Bonneville modifies its policy regarding conditions for access to interties with Alberta or the Pacific Southwest as currently described in subsections 6(a)(3) and 6(a)(4) and the

Parties are unable to reach agreement on amending subsections 6(a)(3) or 6(a)(4) to reflect that new policy prior to the effective date of the new policy, any Party can terminate this Agreement on two years' prior written notice.

(d) Section 2 subsections (e) and (f) shall become subsections (g) and (h).

(d) Section 4 is hereby deleted and replaced as follows:

4. Exhibits.

4(a) The rights and obligations of the Parties with respect to the provisions hereunder shall be subject to and governed by this Agreement, including Exhibits A through K attached hereto and by this reference made a part of this Agreement. The headings used in this Agreement are for convenient reference only, and shall not affect the interpretation of this Agreement. In the event of a conflict between the terms contained in the body of this Agreement and the terms contained in any Exhibit, the terms of this Agreement shall control.

4(b) Exhibits A (Bonneville General Rate Schedule Provisions) and D (Bonneville General Transmission Rate Schedule Provisions) are replaced with Exhibits A (Bonneville 1989 Wholesale Power Rate Schedules and General Rate Schedule Provisions) and D (Bonneville 1989 Transmission Rate Schedules and General Transmission Rate Schedule Provisions). Exhibit G (Transmission Loss Factors) is replaced with a new Exhibit G (Transmission Loss Factors). Exhibit K (POWEREX Transmission Rates) is added.

(e) Subsection 6(a) is hereby deleted and replaced as follows:

6(a) The Parties agree that transmission services provided by the Parties pursuant to this Agreement shall be according to reciprocal terms, conditions, and rates as follows:

(1) Bonneville's IS-89, IN-89 and ET-89 rates, or their successors contained in the Bonneville transmission rate schedules attached hereto as Exhibit D, shall be used by Bonneville to determine charges for transmission services provided under this Agreement.

(2) POWEREX Rates for Non-Firm and Short-Term Firm Transmission Service attached hereto as Exhibit K shall be used by B.C. Hydro and POWEREX to determine charges for transmission services provided under this Agreement; provided, however, that Bonneville may, at its option, use POWEREX's Power Exchange Operation "Bulletin Board" transmission rate on a daily or hourly basis when that rate is lower. Once Bonneville has entered into an agreement for a transaction with B.C. Hydro or POWEREX for transmission services, the specific rate agreed to for those services shall remain in effect for the term of the transaction.

(3) When B.C. Hydro is in a spill or likelihood of spill, as determined by B.C. Hydro, Bonneville may be denied access across the B.C. Hydro Intertie with Alberta.

(4) B.C. Hydro and POWEREX's access to Bonneville's intertie with the Pacific Southwest shall be governed by Bonneville's May 17, 1988, Long-Term Intertie Access Policy.

(f) Subsection 6(b) is hereby added as follows:

6(b) If either B.C. Hydro, POWEREX or Bonneville makes any modification, deletion, addition, revision, or change to their respective transmission rate methodologies, then each Party may participate in whatever process is provided by law or by agreement to review such action.

In the event of a proposed Bonneville rate action, B.C. Hydro and/or POWEREX may participate in Bonneville's statutory ratemaking process set forth

in section 7(i) of Exhibit F. Bonneville shall provide B.C. Hydro and POWEREX notice of its intent to revise rates pursuant to section 38 of Exhibit H.

In the event of a proposed B.C. Hydro or POWEREX rate filing affecting this Agreement, or offering services that are similar or identical to the services offered under this Agreement, before any Canadian regulatory agency, B.C. Hydro or POWEREX shall provide Bonneville (1) 30 days' prior notice of any such proposed filing, and (2) a copy of the proposed rate filing that includes all documentation and analysis used to support the proposed filing 30 days before filing. Bonneville shall be provided an opportunity to comment on B.C. Hydro or POWEREX's proposed rate filing.

(g) Section 6 subsections (b), (c), (d), (e), (f), and (g) shall become subsections (c), (d), (e), (f), (g), and (h).

(h) Section 16(a) is hereby deleted and replaced as follows:

16(a) Bonneville's initial applicable wholesale power and transmission rate schedules attached as Exhibits A and D have been approved by the Agency.

(i) Subsection 16(b) is hereby deleted and replaced as follows:

16(b) Bonneville's wholesale power and transmission rate schedules, General Rate Schedule Provisions, and General Transmission Rate Schedule Provisions included in Exhibits A and D shall be replaced by successor wholesale power and transmission rate schedules and provisions in accordance with the provisions of section 7(i) of Exhibit F and Agency rules.

(j) Subsection 16(c) is hereby added as follows:

16(c) POWEREX shall review Exhibit K on a schedule consistent with Bonneville's schedule for reviewing rates and may revise such exhibit as appropriate pursuant to and consistent with subsection 6(b).

(k) Section 16 subsections (c), (d), (e), (f), (g), and (h) shall become subsections (d), (e), (f), (g), (h), and (i).

3. Signature Clause. The signatories hereto represent that they have been appropriately authorized to enter this Amendatory Agreement on behalf of the Party for whom they sign.

IN WITNESS WHEREOF, the Parties have executed this Amendatory Agreement in several counterparts.

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration

By [Signature]
for Senior Assistant Administrator

ATTEST:

By

Title

Date

[Signature]
Admin Asst. to the Chairman
7 Aug 91

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

By

Title

Date

[Signature]
Chairman & Chief Executive Officer
7 August 1991

ATTEST:

By

Title

Date

[Signature]
Admin Assistant
7 Aug 1991

BRITISH COLUMBIA POWER EXCHANGE CORPORATION

By

Title

Date

[Signature]
President & CEO
7 Aug 91

(VS6-PMTI-3453e)

Revision No. 1
Exhibit G
Page 1 of 1
Amendatory Agreement No. 1 to
Contract No. DE-MS79-91BP92793
British Columbia Hydro and Power
Authority and British Columbia
Power Exchange Corporation

TRANSMISSION LOSS FACTORS

Bonneville Power Administration Transmission Loss Factors:

Northern Intertie:	0.3 %
Network:	1.6 %
Southern Intertie:	3.0 %

BC Hydro Transmission Loss Factors:

Intertie with Alberta:	0.2%
Network:	6.2%
Intertie with Bonneville:	0.1%

POWEREX RATES FOR NON-FIRM AND SHORT-TERM FIRM TRANSMISSION SERVICE 1/
(U.S. \$)

Intertie with Alberta:	1.45 mills/kWh
Network:	5.10 mills/kWh
Intertie with Bonneville:	0.45 mills/kWh

1/ The above rates were arrived at after extensive consultation between B.C. Hydro, POWEREX, and Bonneville. The Parties agreed that the methodologies used to develop wheeling rates are, in principle, comparable. The Parties, however, did not totally agree to the application of the methodology by POWEREX. Bonneville believes that the rates above are reasonable ceilings to embedded costs for the period through September 30, 1993. B.C. Hydro and POWEREX believe that rigorous comparability would result in relatively higher rates.

AUTHENTICATED COPY

Amendatory Agreement No. 1
Contract No. DE-MS79-91BP92793

AMENDATORY AGREEMENT

executed by the

UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

acting by and through the

BONNEVILLE POWER ADMINISTRATION

and

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

and

BRITISH COLUMBIA POWER EXCHANGE CORPORATION

This AMENDATORY AGREEMENT, executed August 15, 1991, by the UNITED STATES OF AMERICA (Government), Department of Energy (DOE), acting by and through the BONNEVILLE POWER ADMINISTRATION (Bonneville), the BRITISH COLUMBIA HYDRO AND POWER AUTHORITY (B.C. Hydro), continued under the Hydro and Power Authority Act of the Province of British Columbia, and BRITISH COLUMBIA POWER EXCHANGE CORPORATION (POWEREX), incorporated pursuant to the laws of the Province of British Columbia, hereinafter sometimes referred to individually as "Party" and collectively as "Parties,"

WITNESSETH

WHEREAS Bonneville, B.C. Hydro, and POWEREX, on January 9, 1991, entered into an agreement (Contract No. DE-MS79-91BP92793, which, as amended or replaced, is hereinafter referred to as the "I&E Agreement") providing for short-term power sales, exchanges, transmission, and other services among the Parties; and

AUTHENTICATED COPY

Amendatory Agreement No. 2
Contract No. DE-MS79-91BP92793

AMENDATORY AGREEMENT

executed by the

UNITED STATES OF AMERICA

DEPARTMENT OF ENERGY

acting by and through the

BONNEVILLE POWER ADMINISTRATION

and

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

and

BRITISH COLUMBIA POWER EXCHANGE CORPORATION

This AMENDATORY AGREEMENT, executed March 31, 1992, by the UNITED STATES OF AMERICA (Government), Department of Energy (DOE), acting by and through the BONNEVILLE POWER ADMINISTRATION (Bonneville), the BRITISH COLUMBIA HYDRO AND POWER AUTHORITY (B.C. Hydro), continued under the Hydro and Power Authority Act of the Province of British Columbia, and BRITISH COLUMBIA POWER EXCHANGE CORPORATION (POWEREX), incorporated pursuant to the laws of the Province of British Columbia, hereinafter sometimes referred to individually as "Party" and collectively as "Parties,"

W I T N E S S E T H :

WHEREAS Bonneville, B.C. Hydro and POWEREX, on January 9, 1991, entered into an agreement (Contract No. DE-MS79-91BP92793, which, as amended or replaced, is hereinafter referred to as the "I & E Agreement") providing for short-term power sales, exchanges, transmission, and other services among the Parties; and

WHEREAS the Parties desire to clarify language related to transmission rate schedules for non-firm and short-term firm transmission services provided by either B.C. Hydro or POWEREX; and

WHEREAS the Parties desire to extend the period of time of transactions subject to the I & E Agreement; and

WHEREAS B.C. Hydro and POWEREX have changed their designated bank accounts referenced in section 12(e) of the I & E Agreement; and

WHEREAS Bonneville is authorized pursuant to law to dispose of electric power and energy generated at various Federal hydroelectric projects in the Pacific Northwest, or acquired from other resources, to construct and operate transmission facilities, to provide transmission and other services, and to enter into agreements to carry out such authority;

NOW, THEREFORE, the Parties hereto mutually agree as follows:

1. Effective Date of Agreement.

This Amendatory Agreement is effective at 2400 hours on March 30, 1992.

2. Amendment to the I & E Agreement.

- (a) The last sentence of subsection 6(a)(2) is hereby deleted and replaced as follows:

6(a)(2) . . . Once Bonneville has entered into an agreement for a transaction with B.C. Hydro or POWEREX for transmission services, the rate schedule chosen by Bonneville for those services, which is either Exhibit K or the Power Exchange Operation "Bulletin Board" transmission rate, shall remain in effect for the term of the transaction.

- (b) Subsection 6(e) is hereby deleted and replaced with the following:

6(e) All transactions pursuant to subsections 6(c) and 6(d) above shall be for a period not to exceed 48 months. All such transactions in excess of 1 month shall be confirmed in writing by such Parties thereto prior to the commencement of service thereunder.

- (c) Subsection 12(e)(1) is hereby deleted and replaced with the following:

12(e)(1) Payment to POWEREX shall be remitted by wire transfer for same day value to: Bank of Montreal, Main Branch, 595 Burrard Street, Vancouver, B.C., Account No. 4625-335, or as otherwise notified pursuant to subsection 12(h).

- (d) Subsection 12(e)(2) is hereby deleted and replaced with the following:

12(e)(2) Payment to B.C. Hydro shall be remitted by wire transfer for same day value to: Bank of Montreal, Main Branch, 595 Burrard Street, Vancouver, B.C., Account No. 4625-327, or as otherwise notified pursuant to subsection 12(h).

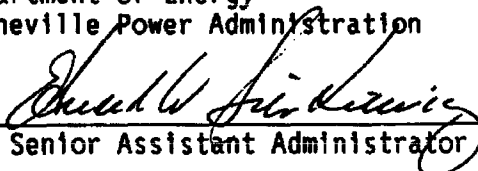
3. Signature Clause.

The signatories hereto represent that they have been appropriately authorized to enter this Amendatory Agreement on behalf of the Party for whom they sign.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendatory Agreement in several counterparts.

UNITED STATES OF AMERICA
Department of Energy
Bonneville Power Administration

By



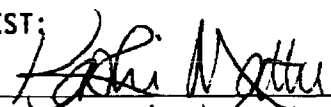
Senior Assistant Administrator

Name Edward W. Sienkiewicz
(Print/type)

Date March 31, 1992

ATTEST:

By



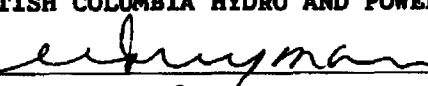
Name KASHI MATTU
(Print/Type)

Title Interutility Issues Manager

Date 92/3/31

BRITISH COLUMBIA HYDRO AND POWER AUTHORITY

By



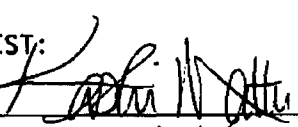
Name W.S.R. Wyman
(Print/Type)

Title CHAIRMAN

Date 92/3/31

ATTEST:

By



Name KASHI MATTU
(Print/Type)

Title Interutility Issues Manager

Date 92/3/31

POWEREX

By



Name K. E. Er
(Print/Type)

Title CEO

Date 92/3/31

(VS6-PMTI-3528e)